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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,138

12/03/2003

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04/01/2008

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EXAMINER

DO, CHAT C

ART UNIT

PAPER NUMBER

2193

MAIL DATE

DELIVERY MODE

04/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/727,138</p>	<p><b>Applicant(s)</b> SAHA ET AL.</p>	
	<p><b>Examiner</b> CHAT C. DO</p>	<p><b>Art Unit</b> 2193</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11 March 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-7 and 10-20.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Chat C. Do/  
Primary Examiner, Art Unit 2193

Continuation of 11. does NOT place the application in condition for allowance because: The applicant argued in page 7 fourth paragraph for claims rejected under 35 U.S.C. 101 that the current amended version would overcome the rejection by processing a digital signal. In addition claim 3 is not a software claim since recites means for storing the inputs and outputs of the system to process a digital signal. The examiner respectfully submits that the current amendment does not overcome the 101 rejection as cited in the previous Office action since the claims just merely disclose series steps for performing FFT/IFFT without clearly disclosing a practical application. Further the claims appear to preempt every substantial practical application of the idea embodied by the claims. Claim 3 is considered as a software per se since every means is software module for performing the intended function. Nothing in the claim would indicate or utilize hardware to perform the intended function rather software modules.

The applicant argued in page 7 for claims 5-6 that there is no explanation of why claims 5 and 16 are directed to non-statutory subject matter.

The examiner respectfully submits that the previous Office action clearly address how and why these claims are directed to non-statutory subject matter. IN ADDITION to the above rejection under 35 U.S.C. 101, claims 5 and 16 merely disclose a computer readable medium without clearly address that the medium is tangible and executed by a computer. Without executing by a computer, the computer-readable medium is just a storage which cannot perform the intended functions.

The applicant argued in page 8 for claims rejected under 35 U.S.C. 103(a) that the cited references by Abel and Jaber fail to disclose the "linear scalable" method wherein the specification defines the "linear scalability" as the computation time reducing in inverse proportion to the number of processors in the multiprocessor solution and the step of "distributing...in the stage" would support the linear scalable method as claimed.

The examiner respectfully submits that the definition of linear scalability as "the computation time reducing in inverse proportion to the number of processors in the multiprocessor solution" is addressed in the original specification, but not in the claim. In addition, the step "distributing...in the stage" has no direct correlated to the definition of the "linear scalability" as "the computation time reducing in inverse proportion to the number of processors in the multiprocessor solution". Thus, the "linear scalable" is not given any patentable weight because it is recited in the preamble of the claim. In general, the combination of references by Abel and Jaber clearly discloses reasonably every single limitations cited in the claims either individually or in combination.

The applicant argued in pages 9-10 for claims 1, 3, and 5 that neither Abel nor Jaber teach, suggest or motivate a linear scalable method comprising a first plurality of stages employing a plurality of butterfly operations having a first radix, wherein each of the butterfly operations in each stage in the first plurality of stages has a single, un-nested computation loop of the first radix as cited in the claimed invention.

The examiner respectfully submits that this particular features are very common/standard in FFT as clearly seen in primary reference by Abel et al.'s Figures 1-14. Abel et al. disclose in Figures 1-14 a linear scalable method for computing a Fast Fourier Transform (FFT) or Inverse Fast Fourier transform (IFFT) in a system (e.g. abstract, Figures 7 and 11 wherein Figure 7 discloses an IFFT and Figure 11 discloses a FFT) using a decimation in time approach (e.g. last line of abstract and col. 13 line 65 to col. 14 line 12), comprising the steps of: computing an N-point FFT/IFFT of a signal (e.g. either seen in Figures 7-8 or Figure 11 for IFFT/FFT respectively) using a first plurality of butterfly computational stages (e.g. Figure 4 and Figure 8 wherein the first plurality of butterfly is performed in components 800 and 805), each stage in the first plurality of stages employing a plurality of butterfly operations having a first radix (e.g. Figure 8 wherein components 800 and 805 each utilizes radix-2 as the first radix size) wherein each of the butterfly operations in each stage (e.g. components 800, 805, and 810 in Figure 8) in the first plurality of stages has a single, un-nested computation loop of the first radix (e.g. Figure 4 and Figure 8 wherein there is no loopback/feedback for computing the IFFT/FFT).